

# State Data Center Cost Allocation Plan Fiscal Year 2020



The Cost Allocation Plan is the State of Missouri's initiative to develop a cost-based method to establish billing rates for Information Technology services and products. The Cost Allocation Plan works to ensure State of Missouri IT services are provided in a cost effective manner.

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## Introduction

The State Data Center's Cost Allocation Plan was developed to establish a cost-based recovery method for the State's Information Technology Services. The benefits of the CAP are twofold. First, the CAP allows for a full-cost recovery process of SDC services. Both, direct and indirect costs, are included in the full-cost recovery to minimize under or over recovery of the SDC's total budgeted costs. Secondly, each customer is treated in an equitable manner, based on the resources used by that customer.

This document will provide the methodology used for determining the rates billed, an explanation of terms used, summarized anticipated personnel expenses, itemized estimated expenditures for the SDC, a summarized list of the costs per service with the rate calculation, an estimated billing based on utilization per customer, and a rate comparison of the current year and the preceding four years.

## Methodology

To develop the CAP, the following components were analyzed to establish the final SDC CAP rates.

- **Determination of the Rate Category for Services Provided:** All services provided to the customer by the SDC are identified and approved by the Chief Information Officer (CIO).
- **Units of Service:** The unit of service used to measure the volume of the service provided by each CAP item is established based on three criteria.
  - The relationship to the function performed
  - The measurability
  - The controllability by the customer
- **Compilation of the Estimated Utilization by Customer:** For each CAP item, the utilization by customer is compiled and totaled to develop the basis for the billing rate computation.
- **Identify the Type of Cost:** There are two types of costs identified in the CAP, allocated direct and allocated indirect costs. Allocated direct costs are associated with personnel and equipment costs that can be directly identified based on the type of service. Allocated indirect costs are related to support costs for services provided by the SDC and cannot be identified by a specific type of service.
- **Determine the Allocated Direct Cost:** Allocated direct costs are those costs budgeted for personnel, equipment or other expenses that can be directly identified with providing a specific service. These costs are accumulated to determine the total allocated direct costs associated with each type of service provided.
- **Determine the Allocated Indirect Cost:** Allocated indirect costs are those costs budgeted that are not associated with a specific service. These costs are accumulated to determine the total allocated indirect costs and prorated across each type of service provided.
- **Summarization of the Total Costs by Service:** The summarized total cost by service is determined by adding both direct and indirect allocated costs with job costs.
- **Calculated Rate per Unit of Service:** The rate per unit of service is calculated by dividing the total annual cost by the total estimated annual utilization.

## Explanation of Terms

- **Allocated Direct:** The personnel services, equipment and other expenses directly identified with providing a service.
- **Allocated Indirect:** The personnel services, equipment and other expenses indirectly identified with providing a service.
- **CPU Priority Adjustment:** CPU Priority Adjustments are based on the batch job priority class defined by the customer and the time of day for TSO usage. Low priority jobs are billed at 75 percent of the normal CPU rate. Low priority jobs are processed during the second and third shifts. Class One jobs are billed at 65 percent of the normal CPU rate. These jobs are processed during weekends and holidays. TSO, CPU, and FOCUS CPU usage during non-prime hours (5pm to 7am) and are billed at 75 percent of the normal CPU rate.

**State Data Center  
Budget Summary**

	<b>FY19 CAP</b>	<b>FY20 CAP</b>
Personal Services	5,982,878	6,302,575
Employee Benefits	2,690,195	2,817,296
Expense and Equipment	27,479,721	29,475,852
<b>Total Budgeted Costs</b>	<b>36,152,795</b>	<b>38,595,723</b>

<b>Budget Details</b>			
<b>Number</b>	<b>Description</b>	<b>FY19 CAP</b>	<b>FY20 CAP</b>
	Personal Services	5,982,878	6,302,575
	Fringe Benefits	2,690,195	2,817,296
	<b>Total Personal Services and Fringe Benefits</b>	<b>8,673,074</b>	<b>9,119,870</b>
	<b>Hardware Lease</b>		
103	CPU	744,816	750,000
105	DASD	143,750	
106	DASD Growth	142,000	445,116
107	Deduplication/Replication HW Lease	344,544	530,731
108	Disaster Recovery CPU (Springfield Site)	14,000	184,500
113	SAN DASD	387,825	956,232
119	VM Hardware Lease/Purchase	348,000	629,741
120	DR Print Services		100,000
	<b>Total Hardware Lease</b>	<b>2,124,935</b>	<b>3,596,320</b>
	<b>Hardware Maintenance</b>		
205	DASD maintenance	175,000	43,744
206	Data Domain Server and Storage Maintenance	250,000	136,000
207	DistSys Backup Admin Servers Maint (TSM Win)	10,000	10,000
214	External Coupling Facility	25,289	30,456
222	Print Burster/Trimmer/Stacker	120,000	110,000
223	Print Usage	165,000	155,000
224	Printer-Impact	5,000	5,000
225	Printer-Laser	74,000	95,000
229	Remote Server Maintenance	10,000	6,000
231	SAN Sever and Storage Maintenance	370,000	286,483
233	GTX Qualifier Maintenance	3,000	3,000
237	z/OS Virtual Tape	150,000	87,450
238	VM Server and Storage Maintenance	80,000	61,000
239	Batteries/UPS Maintenance	50,000	52,000
240	Generator Maintenance	2,000	2,000
243	VDI Server Maintenance	10,000	20,000
244	VDI Storage Maintenance	47,000	51,000
245	DistSys SVC Hardware Maint	10,000	17,000
246	QCX E138 MICR Verifier		2,500
	<b>Total Hardware Maintenance</b>	<b>1,556,289</b>	<b>1,173,633</b>
	<b>Software Lease</b>		
303	Softek TDMF Replicator for zOS	67,000	67,000
305	BMC Mainview	119,265	122,470
306	CICS Transaction Gateway	51,666	51,590
307	CICS/TS V5	816,338	952,925
308	COBOL for MVS	105,600	123,300
309	Mackinney Software	9,064	8,480
311	AFP Toolbox (Toolkit)	3,275	3,825
313	DSF/DSS/HSM	146,000	146,000
321	Interactive Output Facility (IOF)	6,461	6,050
324	WebSphere MQ for Z/OS	357,637	360,000
328	OGI	6,221	7,265
329	OS/390	1,532,006	1,788,337
330	Page Print Format Aid/370 V1 PPFA	4,364	5,095

331	Enterprise PL/1 Alternate Function	97,397	113,692
332	PSF	50,255	53,055
333	SDF II	31,260	36,490
338	DB2 for Z/OS V9	713,312	832,661
340	Microsoft Server Operating System Subsc.	25,000	5,000
341	UDB - DB2 Utilities Suite	40,638	39,455
342	Symantec EndPoint Protection Subsc. - RSS	20,000	5,000
343	Antivirus for Exchange	130,000	130,000
344	Vmware vCloud Enterprise Suite	750,000	987,828
345	SiteScan	5,000	5,000
349	Lansweeper	911	911
351	Kiwi Syslog	2,211	291
352	Microsoft System Center Suite		7,500
353	Solarwinds NPM	8,563	9,186
354	Solarwinds SAM	6,337	7,397
355	Solarwinds NTA	5,173	5,536
356	Orion Polling Engines	68,000	68,840
357	Orion Web Server	92	101
360	IBM SKLM encryption licenses	10,000	2,510
361	Splunk Logging	170,000	170,000
363	EMC Software ELA	150,000	482,000
364	Solarwinds WPM	12,865	3,450
365	Enhanced ACIF		5,610
<b>Total Software Lease</b>		<b>5,521,912</b>	<b>6,613,851</b>
<b>Software Maintenance</b>			
401	Axceler ControlPoint - SharePoint Internal	26,000	26,208
404	CA Interest W/XA-ESA-Batch	48,152	52,967
405	CA Interest W/XA-ESA-CICS	72,195	74,361
406	CA Librarian	109,208	120,129
408	CA Restart/Recover (CA11)	40,022	44,024
410	CA Scheduling Package (CA7)	118,026	129,829
411	CA TMS (CA1)	68,000	68,000
412	CA UNIPAK	1,162,884	1,197,771
414	Omegamon for CICS	65,700	65,603
415	CL/Supersession for z/OS	68,985	68,883
416	IBM Tivoli Omegamon XE DB2 V4	152,205	151,981
417	IBM Tivoli Omegamon XE z/OS V2	131,400	131,206
419	DB2 Connect	516,000	480,376
420	SEA JCL Plus	21,089	23,703
421	Document Management Systems (MOBIUS)	101,419	104,462
422	Dumpmaster MVS	119,283	119,283
424	Group 1 Software Zip+4	37,278	27,400
426	Symantec EndPoint Protection Subsc.	3,000	
427	Red Hat Enterprise\Network Satellite Maint	92,000	82,000
428	Tivoli WAS\ND	139,906	168,000
429	Insync MVS	101,957	100,015
431	Tic Toc	8,475	9,150
433	Symantec EndPoint Protection Subsc. - VM	20,000	20,000
434	Connect:Direct	30,000	17,653
435	Merrill Consultants MXG	2,625	2,500
436	MVS Quick Reference	36,850	37,558
438	DistSys SSL Certificates	5,500	2,000
439	MoveIT Software Maint	9,071	13,606
440	Platinum DB2 Tools	781,536	804,982
442	MicroSoft Team Foundation Software Subscription	2,565	
443	SAS Base	114,840	118,284.92
444	SAS/STAT	80,030	82,430.55
445	SAS/ACCESS	76,951	79,259.48
446	Rocket Software	25,000	25,000.00
447	SAS/ETS	80,030	82,430.55
451	SA Licenses for SQL	270,000	762,068.00
452	SI SYNC/SORT	30,611	33,569.00

453	SynRecovery software	1,000	1,000.00
454	SPC Systems Cobol RW Precompiler	3,144	3,144.00
456	Distributed Print Software Maintenance	37,250	38,625.00
457	DistSys Biscom Software Maintenance	22,000	
458	DistSys SSRS Software Maintenance	34,030	27,000.00
460	Tivoli Storage Management	196,000	193,683.23
463	Vanguard Administration	65,921	61,040
467	Load Balancer Maintenance		115,296
468	SQL	109,200	107,625
469	VMWare Software Maintenance	375,000	129,869
470	Microsoft VDA Licensing (Software Subscription)	472,500	534,000
471	Catalog Recovery Software - zOS Enterprise Data Backup	5,405	5,405
472	SDI TN3270 Emulation	198,144	26,000
473	DB2 Maintenance	558,000	702,778
474	Software - Maintenance Renewals AD	100,000	128,000
477	SAN Software	847,000	697,182
478	Vranger Software Maintenance	25,000	25,000
481	Software -Maintenance Renewals -ShareGate		6,350
482	Software - Maintenance Renewals SharePoint	11,186	3,616
483	JIRA Software Maintenance plus plugin	12,688	14,104
487	Solimar	40,979	37,916
489	uDeploy software Maintenance	50,000	74,425
490	Rocket software Fast Audit & Catalog audit	27,000	27,000
491	ITSM Tool Maintenance	145,000	201,600
492	Office 365 ProPlus	448,257	495,000
494	Tidal License	56,442	44,910
495	Master Tidal License Standalone Production	3,850	-
498	Enterprise OnBase Licenses	240,000	240,000
499	AppViewX Software Maintenance	15,392	15,392
M01	Encryption Maintenance	7,700	7,700
M02	Udeploy Test License Purchase	70,000	-
M03	Tableau (1 Prod - Encryption License - Estimate)	19,744	4,826
M04	Tableau Desktop Maintenance Renewal	395	790
M05	WAS Encryption - Guardium		18,703
M06	SSRS Encryption- Guardium	3,500	603
M07	DistSys SSL Certificates AD		3,500
	<b>Total Software Maintenance</b>	<b>8,967,019</b>	<b>9,318,774</b>
	<b>Hardware Purchase</b>		
503	Deduplication/Replication Purchase - DistSys Backup-Recovery	300,000	221,450
506	Desktop Computer Equipment	4,000	-
510	Servers - AD	48,000	48,000
514	VM Hardware Purchase	175,000	356,000
516	VDI End-Point Device	315,000	112,500
517	VDI Server and Upgrades	95,000	215,000
518	VDI Storage and Upgrades	46,500	125,000
519	DistSys SAN Hardware Upgrade	438,000	364,692
520	z/OS InfoPrint Hardware Purchase	305,000	145,000
529	Exchange Growth	40,000	40,000
530	Enterprise Vault Growth	60,000	60,000
532	NOC - Desktop Computer Equipment	3,200	3,200
533	zOS Data Backup Purchase	183,500	458,975
534	F5 appliance	75,000	
536	Security Review Audit	30,000	30,000
537	Plesk License Purchase	2,520	2,520
538	Box software subscription	62,400	95,591
539	Scanner for OnBase		12,500
	<b>Total Hardware Purchase</b>	<b>2,183,120</b>	<b>2,290,428</b>
	<b>Software Purchase</b>		
601	Enterprise License for SQL (New)	670,972	-
606	TSM Software Purchase		15,000.00
607	VM Software Purchase	730,000	312,500.00

608	Vranger License Enhancement	15,000	15,000.00
609	VMWare View Licensing	136,000	277,733.00
618	Microsoft System Center Suite	10,000	20,000.00
620	Foglight license purchase/maintenance	80,000	80,000.00
622	New Enterprise Modules	40,000	32,000.00
628	Logging Software - Splunk	450,000	
629	Monitoring and Tracking Software	225,000	
633	Exchange Server License Purchase		75,000.00
634	Enterprise Vault Renewal	210,000	215,000.00
635	*Proofpoint Mail Relay Software (90% of total cost)	475,000	505,000.00
636	Quadrotech Flightdeck PST software	13,000	13,000.00
640	SQL Software	326,037	662,477.00
641	MySQL Software	20,801	36,809.00
644	Tableau License	23,119	34,471.00
645	Additional 26 Client licenses	22,107	26,974.00
646	License	50,370	
647	uDeploy additional Agents	60,000	15,000.00
648	AppViewX additional licenses		508.64
653	AD/EXCHANGE Quest MA	59,000	
654	Rave Texting	25,000	25,000
655	ILMT		3,632
657	Software Delivery Tool		195,000
	<b>Total Software Purchase</b>	<b>3,641,405</b>	<b>2,560,104</b>
	<b>Expendable Supplies</b>		
704	Paper	325,000	585,000
706	Printer Supplies	200,000	240,000
	<b>Total Expendable Supplies</b>	<b>525,000</b>	<b>825,000</b>
	<b>General Support Expense</b>		
802	Consulting Service	20,000	120,000
807	IBM Server Support Line	45,000	
808	Internet Expenses	58,635	55,000
811	Office Supplies, Equipment and Maintenance	70,000	75,000
812	Pagers & Cell Phones	20,000	20,000
813	Electrical Distribution, Maintenance	30,000	20,000
814	Postage/Inter Agency Mail Delivery	1,500	1,500
816	Racks, Cabinets, Furniture & Building Changes	50,000	50,000
818	S390 SoftwarExcel	192,366	114,366
820	Subscriptions & Publications	7,000	1,000
821	Telephone Service and Equipment	70,000	60,000
822	Training & Professional Development	25,000	30,000
823	Travel	20,000	10,000
824	Resource Oversight	50,000	50,000
825	VPN - Access Charge	3,000	3,000
827	SSL Certificates	2,000	2,000
828	Service Deployment Appliance	20,000	20,000
829	Shredding	2,000	2,000
830	SAN/NAS Support Line	25,000	29,345
831	Disaster Recovery Rental (Springnet)	470,000	495,000
832	Disaster Recovery Electric (Springnet)	111,000	120,000
835	AD & Exchange Contractor Services	50,000	50,000
836	AD & Exchange Training\Travel\Tools for Staff	31,403	13,110
837	FTP Staff Training\Travel\Tools for Staff	2,120	1,970
838	SAN Training\Travel\Tools for Staff	15,000	8,000
839	SQL Training \Travel\Tools for Staff	50,000	50,000
840	SharePoint Training \Travel\Tools for Staff	23,300	27,000
841	VM Training\Travel\Tools for Staff	25,000	21,000
842	TSM Training\Travel\Tools for Staff	10,000	7,500
845	WAS Training\Travel\Tools for Staff	8,916	14,476
848	VM Additional Charges for SharePoint	1,276	-
853	SSRS Training\Travel\Tools for Staff	3,123	5,973
857	Compco Software and Billing Expenses	40,000	40,000

858	Fiscal Costs	10,000	10,000
859	CPU Training\Travel\Tools for Staff	30,980	20,000
860	CICS Training\Travel\Tools for Staff	16,383	10,000
863	Watson & Walker Publication	1,336	1,336
869	SSL Training\Travel\Tools for Staff	59,144	32,220
872	NOC Training \Travel\Tools for Staff	40,500	40,000
873	Staff Training	26,200	26,200
874	VDI\Workstation		6,018
876	Proofpoint consulting/support services	10,000	10,000
879	Biscom Tools, Utilities, Tranining	2,500	
880	JIRA Training\Travel\Tools for Staff	1,123	6,326
881	MySQL Training \Travel\Tools for Staff	5,000	5,000
882	DB2 LUW Training\Travel\Tools for Staff	47,215	42,694
883	Tableau Training\Travel\Tools for Staff	3,988	3,151
884	ITSM Training		22,000
885	Neodynamic Barcode	3,500	1,620
886	Priority Support per server	5,000	5,000
887	BOX Training\Travel\Tools for Staff	7,659	7,020
888	Professional Services		40,000
889	AD Training\Travel\Tools for Staff		8,093
	<b>Total General Support Expense</b>	<b>1,823,167</b>	<b>1,813,918</b>
	<b>Cost Adjustment</b>		
	Capital Cost	(332,584)	(182,500)
	Depreciation	1,469,458	1,466,325
	<b>Total Cost Adjustment</b>	<b>1,136,874</b>	<b>1,283,825</b>
	<b>Total Expense and Equipment</b>	<b>27,479,721</b>	<b>29,475,852</b>
	<b>Grand Total</b>	<b>36,152,795</b>	<b>38,595,723</b>

**Category 1      Lines/Feet Printed**

Unit of Service Utilization		Lines/Feet Printed 57,000,000	Lines/Feet Printed 57,000,000
Budgeted Costs		FY19	FY20
Direct Personnel		248,289	259,966
Fringe Benefits		111,643	111,643
<b>Personal Services</b>		<b>359,932</b>	<b>371,609</b>
120	DR Print Services		100,000
222	Print Burster/Trimmer/Stacker	120,000	110,000
223	Print Usage	165,000	155,000
224	Printer-Impact	5,000	5,000
225	Printer-Laser	74,000	95,000
246	QCX E138 MICR Verifier		2,500
311	AFP Toolbox (Toolkit)	3,275	3,825
328	OGL	6,221	7,265
330	Page Print Format Aid/370 V1 PPFA	4,364	5,095
332	PSF	50,255	53,055
365	Enhanced ACIF		5,610
456	Distributed Print Software Maintenance	37,250	38,625
520	z/OS InfoPrint Hardware Purchase	305,000	145,000
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>770,365</b>	<b>725,975</b>
704	Paper	325,000	585,000
706	Printer Supplies	200,000	240,000
<b>Expendable Supplies Total</b>		<b>525,000</b>	<b>825,000</b>
829	Shredding	2,000	2,000
<b>General Support Expense Total</b>		<b>2,000</b>	<b>2,000</b>
Depreciation		146,667	99,000
Capital Purchases		(225,000)	(145,000)
<b>Total Capital Cost</b>		<b>(78,333)</b>	<b>(46,000)</b>
Dist BU Rec		1,000	1,645
SAN		3,000	2,147
SQL			3,584
VM		13,000	9,637
<b>Job Costs Total</b>		<b>16,000</b>	<b>17,013</b>
NOC		134,165	134,270
Indirect Cost		115,122	136,944
<b>Total Service Costs</b>		<b>1,844,251</b>	<b>2,166,812</b>
<b>Estimated Revenue</b>		<b>2,098,577</b>	<b>2,166,812</b>
Profit/loss			
<b>Simplex Rate</b>	<b>30.55% of Service Cost</b>	<b>\$0.0380</b>	<b>\$0.0446</b>
		Per Foot	Per Foot
<b>Duplex Rate</b>		<b>\$0.0304</b>	<b>\$0.0357</b>
		Per Foot	Per Foot
<b>Impact Print (per 1,000) Rate</b>		<b>\$0.4527</b>	<b>\$0.5319</b>

**\*Laser Feet, Duplex Printing and Line Printed:** : Reports printed on the high speed production printers are comprised of lines printed (impact) and/or the feet printed (laser/duplex). A cost is then assessed based on the printed line and/or feet printed.

## Category 2 CPU Service Units

Unit of Service Utilization	CPU Service Units 980,000,000,000	CPU Service Units 992,795,138,586
Budgeted Costs	FY19	FY20
Direct Personnel	366,739	407,755
Fringe Benefits	164,904	165,033
<b>Personal Services</b>	<b>531,643</b>	<b>572,788</b>
103 CPU	744,816	750,000
108 Disaster Recovery CPU (Springfield Site)	14,000	184,500
214 External Coupling Facility	25,289	30,456
305 BMC Mainview	119,265	122,470
308 COBOL for MVS	105,600	123,300
309 Mackinney Software	9,064	8,480
321 Interactive Output Facility (IOF)	6,461	6,050
329 OS/390	1,532,006	1,788,337
331 Enterprise PL/1 Alternate Function	97,397	113,692
404 CA Interest W/XA-ESA-Batch	48,152	52,967
406 CA Librarian	109,208	120,129
408 CA Restart/Recover (CA11)	40,022	44,024
410 CA Scheduling Package (CA7)	118,026	129,829
414 Omegamon for CICS	65,700	65,603
415 CL/Supersession for z/OS	68,985	68,883
417 IBM Tivoli Omegamon XE z/OS V2	131,400	131,206
420 SEA JCL Plus	21,089	23,703
421 Document Management Systems (MOBIUS)	101,419	104,462
422 Dumpmaster MVS	119,283	119,283
424 Group 1 Software Zip+4	37,278	27,400
429 Insync MVS	101,957	100,015
431 Tic Toc	8,475	9,150
434 Connect:Direct	30,000	17,653
435 Merrill Consultants MXG	2,625	2,500
436 MVS Quick Reference	36,850	37,558
443 SAS Base	114,840	118,285
444 SAS/STAT	80,030	82,431
445 SAS/ACCESS	76,951	79,259
447 SAS/ETS	80,030	82,431
452 SI SYNC/SORT	30,611	33,569
454 SPC Systems Cobol RW Precompiler	3,144	3,144
463 Vanguard Administration	65,921	61,040
472 SDI TN3270 Emulation	198,144	26,000
487 Solimar	40,979	37,916
506 Desktop Computer Equipment	4,000	-
536 Security Review Audit	30,000	30,000
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>4,419,016</b>	<b>4,735,724</b>
818 S390 SoftwarExcel	192,366	114,366
859 CPU Training\Travel\Tools for Staff	30,980	20,000
888 CPU Professional Services		40,000
863 Watson & Walker Publication	1,336	1,336
<b>General Support Expense Total</b>	<b>224,682</b>	<b>175,702</b>
Depreciation	174,119	1,000
Capital Purchases	(6,584)	
<b>Total Capital Cost</b>	<b>167,535</b>	<b>1,000</b>
AD	35,000	44,358
Dist BU Rec	100,050	13,639
Print	600	346

MySQL	130,000	-
Onbase	40,000	-
Remote Server Support	7,200	5,015
SAN	23,100	18,269
SQL	5,000	3,381
SSRS	80	-
VDI	5,000	10,312
VM	60,000	45,887
WAS	6,000	23,969
zOS Data BU	110,000	171,575
zOS Data Storage	120,000	163,108
zOS DB2	1,000	1,362
<b>Job Costs Total</b>	<b>643,030</b>	<b>501,220</b>
NOC	503,208	424,035
Indirect Cost	431,781	432,480
<b>Indirect Subtotal</b>	<b>934,989</b>	<b>856,515</b>
<b>Total Service Costs</b>	<b>6,920,895</b>	<b>6,842,949</b>
<b>Estimated Revenue</b>	<b>6,920,895</b>	<b>6,842,949</b>

<b>Rate</b>	<b>\$0.0071</b>	<b>\$0.0069</b>
	Per 1,000 Service Units	Per 1,000 Service Units

**Prime/Peak Time Utilization for CPU will be billed at 100% of the CPU Rate**

**Non-Prime/Off Hours Utilization for CPU will be billed at 75% of the CPU Rate.**

**Low Priority Utilization for CPU will be billed at 65% of the CPU Rate.**

**\*CPU Service Unit:** A mainframe's measurement of the amount of CPU consumption for a job or transaction.

### Category 3 CICS Transactions

Unit of Service Utilization	CICS Transactions 1,986,000,000	CICS Transactions 2,044,947,902
Budgeted Costs	FY19	FY20
Direct Personnel	93,733	94,529
Fringe Benefits	42,147	42,505
<b>Personal Services</b>	<b>135,880</b>	<b>137,033</b>
306 CICS Transaction Gateway	51,666	51,590
307 CICS/TS V5	816,338	952,925
324 WebSphere MQ	357,637	360,000
333 SDF II	31,260	36,490
405 CA Interest W/XA-ESA-CICS	72,195	74,361
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>1,329,096</b>	<b>1,475,366</b>
860 CICS Training\Travel\Tools for Staff	16,383	10,000
<b>General Support Expense Total</b>	<b>16,383</b>	<b>10,000</b>
zOS Data BU	6,676	8,241
zOS Data Storage	3,186	5,616
zOS DB2	7,613	7,479
zOS IDMS	71,823	35,180
<b>Job Costs Total</b>	<b>89,298</b>	<b>56,516</b>
NOC	132,038	118,922
Indirect Cost	113,296	121,290
<b>Total Allocated</b>	<b>245,334</b>	<b>240,213</b>
<b>Total Service Costs</b>	<b>1,815,991</b>	<b>1,919,128</b>
<b>Estimated Revenue</b>	<b>1,815,991</b>	<b>1,919,128</b>
<b>Rate</b>	<b>\$0.000914</b>	<b>\$0.000938</b>
	Per Transaction	Per Transaction

**\*CICS Transaction:** A CICS Transaction is a request made at a workstation for a display or storage of information from a mainframe application.

## Category 5      zOS Data Backup GB/Day

Unit of Service Utilization	Backup GB Per Day 169,000,000	Backup GB Per Day 171,000,000
<b>Budgeted Costs</b>	<b>FY19</b>	<b>FY20</b>
Direct Personnel	70,545	71,394
Fringe Benefits	31,721	32,127
<b>Personal Services</b>	<b>102,266</b>	<b>103,521</b>
233 GTX Qualifier Maintenance	3,000	3,000
237 z/OS Virtual Tape maintenance	150,000	87,450
411 CA TMS (CA1)	68,000	68,000
446 Rocket Software	25,000	25,000
471 Catalog Recovery Software - zOS Data Backup	5,405	5,405
533 zOS Data Backup Purchase	183,500	458,975
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>434,905</b>	<b>647,830</b>
Depreciation	-	38,000
Capital Purchases	-	-
<b>Total Capital Cost</b>	<b>0</b>	<b>38,000</b>
Job Costs		
AD		37
Dist BU Rec		7,487
SAN		7,919
SQL		8,083
VDI		891
VM		2,575
zOS Data Storage	45,000	896
<b>Job Costs Total</b>	<b>45,000</b>	<b>27,889</b>
NOC	48,940	57,887
Indirect	41,994	59,040
<b>Total Allocated</b>	<b>90,934</b>	<b>72,000</b>
<b>Total Service Costs</b>	<b>673,105</b>	<b>889,240</b>
<b>Estimated Revenue</b>	<b>673,105</b>	<b>889,240</b>
<b>Rate</b>	<b>\$0.00398</b>	<b>\$0.00520</b>
	Per GB Per Day	Per GB Per Day

**\*zOS Enterprise Data Backup:** zOS Enterprise Data Backup: zOS Enterprise Data Backup is the utilization of tape backup storage space in the Mainframe environment. Utilization of storage is measured in gigabytes allocated to backup lpars/data sets.

## Category 7.1 Active Directory

Unit of Service	FY19 AD Accounts	FY20 AD Accounts
Utilization AD User ID	808,380	810,396
<b>Budgeted Costs</b>		<b>FY20</b>
Direct Personnel		263,454
Fringe Benefits		121,189
<b>Personal Services</b>		<b>384,642</b>
M07 DistSys SSL Certificates		3,500
474 Software - Maintenance Renewals AD		128,000
510 Servers - AD		48,000
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>179,500</b>
835 Contractor Services		25,000
889 Training\Travel\Tools for Staff		8,093
<b>General Support Expense Total</b>		<b>33,093</b>
Job Dist BU Rec		31,199
Srvr Spprt		27,620
Exchange		11,858
VDI		3,622
SQL		2,600
VM		67,879
Job Costs Total		<b>144,778</b>
NOC		52,559
Indirect Cost		53,606
<b>Indirect Subtotal</b>		<b>106,164</b>
<b>Total Service Costs</b>		<b>815,085</b>
<b>Estimated Revenue</b>		<b>815,085</b>
<b>Rate</b>	<b>AD Rate</b>	<b>AD Rate</b>
	<b>\$1.43</b>	<b>\$1.01</b>

**\*Active Directory:** Active Directory (AD) provides a means to securely authenticate users and access network resources, such as file shares, applications, etc.

## Category 7.2 Exchange

Unit of Service	AD-Exchange Users	Exchange Users
<b>Utilization Exchange</b>	<b>539,988</b>	<b>543,096</b>
<b>Budgeted Costs</b>	<b>FY19</b>	<b>FY20</b>
Direct Personnel	500,538	295,477
Fringe Benefits	225,066	132,965
<b>Personal Services</b>	<b>725,604</b>	<b>428,442</b>
343 Antivirus for Exchange	130,000	130,000
438 DistSys SSL Certificates	5,500	2,000
529 Exchange Growth	40,000	40,000
530 Enterprise Vault Growth	60,000	60,000
633 Exchange Server License Purchase	0	75,000
634 Enterprise Vault Renewal	210,000	215,000
635 Proofpoint Mail Relay Software (90% total cost)	475,000	505,000
636 Quadrotech Flightdeck PST software	13,000	13,000
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>1,140,500</b>	<b>1,040,000</b>
835 Exchange Contractor Services	50,000	25,000
836 Exchange Training\Travel\Tools for Staff	31,403	13,110
876 Proofpoint\support srvc\hardware replacement	10,000	10,000
<b>General Support Expense Total</b>	<b>91,403</b>	<b>48,110</b>
Depreciation	8,299	8,299
Capital Purchases	(10,000)	(10,000)
<b>Total Capital Cost</b>	<b>(1,701)</b>	<b>(1,701)</b>
<b>Job Costs</b>		
Dist BU Rec	241,583	208,794
Server Support	9,300	0
Remote Server Support	26,196	0
SAN	630,694	733,444
SQL	63,830	84,067
VM	391,794	271,518
<b>Job Costs Total</b>	<b>1,363,397</b>	<b>1,297,823</b>
NOC	279,030	199,229
<b>Indirect Cost</b>	<b>239,424</b>	<b>203,197</b>
<b>Indirect Subtotal</b>	<b>518,454</b>	<b>402,426</b>
<b>Total Service Costs</b>	<b>3,837,657</b>	<b>3,215,100</b>
<b>Estimated Revenue</b>	<b>3,837,657</b>	<b>3,215,100</b>
	<b>AD-Exchange Rate</b>	<b>Exchange Rate</b>
<b>Rate</b>	<b>\$1.430000</b>	<b>\$5.92</b>

**\*Exchange:** Exchange services are those related to email provided by ITSD. The costs are based on the number of accounts and/or the amount of email stored on the servers.

**Category 8      zOS Data Storage GB/Day**

Unit of Service	zOS Data Storage GB/Day	zOS Data Storage GB/Day
<b>Utilization</b>	<b>10,784,856</b>	<b>11,000,000</b>

<b>Budgeted Costs</b>		<b>FY19</b>	<b>FY20</b>
Direct Personnel		55,671	58,408
Fringe Benefits		25,032	26,283
<b>Personal Services</b>		<b>80,703</b>	<b>84,691</b>
105	DASD	143,750	
106	DASD Growth	142,000	445,116
205	DASD maintenance	175,000	43,744
303	Softek TDMF Replicator for zOS	67,000	67,000
313	DSF/DSS/HSM	146,000	146,000
360	IBM SKLM encryption licenses	10,000	2,510
490	Rocket SW Fast Audit & Catalog	27,000	27,000
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>710,750</b>	<b>731,370</b>
NOC		66,534	57,804
Indirect Cost		57,090	58,955
Total Allocated		123,624	116,759
<b>Total Service Costs</b>		<b>915,077</b>	<b>932,820</b>
<b>Estimated Revenue</b>		<b>915,077</b>	<b>932,820</b>
<b>Rate</b>		<b>\$0.0848</b>	<b>\$0.0848</b>
		Per GB Per Day	Per GB Per Day

**\*zOS Data Storage:** zOS Data Storage provides direct access storage for mainframe data. Utilization of storage is measured in gigabytes allocated to lpars/data sets.

## Category 10 zOS IDMS

Unit of Service	zOS IDMS	zOS IDMS
Utilization	418,000,000	376,758,672
<b>Budgeted Costs</b>	<b>FY19</b>	<b>FY20</b>
Direct Personnel	74,667	77,955
Fringe Benefits	33,574	35,080
<b>Personal Services</b>	<b>108,241</b>	<b>113,034</b>
412 CA UNIPAK	1,162,884	1,197,771
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>1,162,884</b>	<b>1,197,771</b>
Print	26	49
zOS Data BU	1,000	808
zOS Data Storage	10,974	9,633
<b>Job Costs Total</b>	<b>12,000</b>	<b>10,491</b>
NOC	107,866	93,591
Indirect Cost	92,556	95,455
<b>Total Allocated</b>	<b>200,422</b>	<b>189,046</b>
<b>Total Service Costs</b>	<b>1,483,547</b>	<b>1,510,341</b>
<b>Estimated Revenue</b>	<b>1,483,547</b>	<b>1,510,341</b>
<b>Rate</b>	<b>\$0.0035</b>	<b>\$0.0040</b>
	Per Run Unit	Per Run Unit

**\*zOS IDMS:** zOS IDMS is a CA/Broadcom mainframe hierarchical relational database solution that provides an agency the ability to store its business data for later retrieval and decision making. zOS IDMS Service Unit is a measurement of the amount of system resources a process in IDMS uses to complete its request.

## Category 11 zOS DB2

Unit of Service	zOS DB2 Service Units	zOS DB2 Service Units
<b>Utilization</b>	<b>782,000,000,000</b>	<b>811,872,311,186</b>
<b>Budgeted Costs</b>	<b>FY19</b>	<b>FY20</b>
Direct Personnel	197,640	216,029
Fringe Benefits	88,869	97,213
<b>Personal Services</b>	<b>286,508</b>	<b>313,242</b>
338 DB2 for Z/OS V9	713,312	832,661
341 UDB - DB2 Utilities Suite	40,638	39,455
416 IBM Tivoli Omegamon XE DB2 V4	152,205	151,981
419 DB2 Connect	516,000	480,376
440 Platinum DB2 Tools	781,536	804,982
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>2,203,691</b>	<b>2,309,455</b>
Depreciation	172,000	
Capital Purchases	(516,000)	
<b>Total</b>	<b>(344,000)</b>	<b>-</b>
zOS Data BU	17,000	3,000
zOS Data Storage	15,000	21,000
<b>Job Costs Total</b>	<b>32,000</b>	<b>24,000</b>
NOC	212,030	187,473
Indirect Cost	181,934	191,206
<b>Total Allocated Cost</b>	<b>393,964</b>	<b>378,679</b>
<b>Total Service Costs</b>	<b>2,572,164</b>	<b>3,025,376</b>
<b>Estimated Revenue</b>	<b>2,572,164</b>	<b>3,025,376</b>
<b>Rate</b>	<b>\$0.0033</b>	<b>\$0.0037</b>
	Per 1,000 Service Units	Per 1,000 Service Units

\***zOS DB2:** zOS DB2 is a IBM mainframe relational database solution that provides an agency the ability to store its business data for later retrieval and decision making.

The DB2 Service Unit is a measurement of the amount of system resources a process in DB2 uses to complete its request.

## Category 15 VM

Unit of Service	VM	VM
<b>Utilization</b>	<b>32,200</b>	<b>30,600</b>
<b>Budgeted Costs</b>	<b>FY19</b>	<b>FY20</b>
Direct Personnel	350,562	359,096
Fringe Benefits	157,630	161,593
<b>Personal Services</b>	<b>508,192</b>	<b>520,689</b>
119 VM Hardware Purchase Lease	348,000	629,741
238 VM Server and Storage Maintenance	80,000	61,000
344 Vmware vCloud Enterprise Suite	750,000	987,828
427 Red Hat Enterprise\Network Satellite Maint	92,000	82,000
433 Symantec EndPoint Protection Subsc. - VM	20,000	20,000
514 VM Hardware Purchase	175,000	356,000
607 VM Software Purchase	730,000	312,500
620 Foglight license purchase/maintenance	80,000	80,000
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>2,275,000</b>	<b>2,529,069</b>
807 IBM Server Support Line	45,000	
841 VM Training\Travel\Tools for Staff	25,000	21,000
<b>General Support Expense Total</b>	<b>70,000</b>	<b>21,000</b>
Depreciation	242,000	236,000
Capital Purchases		
<b>Total Capital Cost</b>	<b>242,000</b>	<b>236,000</b>
<b>Estimated Extra CPU Revenue</b>	<b>(200,000)</b>	<b>(280,000)</b>
<b>Estimated Extra Memory Revenue</b>	<b>(800,000)</b>	<b>(1,400,000)</b>
Dist BU Rec	9,600	9,948
MySQL	12,000	535
SAN	92,300	64,254
SQL	96,000	25,347
Server Support		7,235
<b>Job Costs Total</b>	<b>209,900</b>	<b>107,318</b>
NOC	193,778	241,828
Indirect Cost	166,273	246,644
<b>Total Service Costs</b>	<b>2,665,144</b>	<b>2,222,549</b>
<b>Estimated Revenue</b>	<b>2,665,144</b>	<b>2,222,549</b>
<b>Rate</b>	<b>\$82.77</b>	<b>\$72.63</b>
	Per Image/Month	Per Image/Month

Additional charge of \$4.00 per Month extra for every one (1) GB of memory over 2 GB.

Additional charge of \$7.00 per Month extra for every one (1) additional virtual CPU over 3 vCPUs.

\*Virtual Machine (VM): A VM is a virtualized server, which allows multiple VM's to run on a single physical host.

## Category 16 SAN

Unit of Service Utilization		<b>SAN</b> <b>16,063,425</b>	<b>SAN</b> <b>17,500,000</b>
<b>Budgeted Costs</b>		<b>FY19</b>	<b>FY20</b>
Direct Personnel		95,886	99,472
Fringe Benefits		43,115	44,763
<b>Personal Services</b>		<b>139,001</b>	<b>144,235</b>
113 SAN DASD		387,825	956,232
231 SAN Sever and Storage Maintenance		370,000	286,483
245 DistSys SVC Hardware Maint		10,000	17,000
477 SAN Software		847,000	697,182
519 DistSys SAN Hardware Upgrade		438,000	364,692
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>2,052,825</b>	<b>2,321,589</b>
830 SAN/NAS Support Line		25,000	29,345
838 SAN Training\Travel\Tools for Staff		15,000	8,000
<b>General Support Expense Total</b>		<b>40,000</b>	<b>37,345</b>
Depreciation		506,473	439,000
Capital Purchases		0	
<b>Total Capital Cost</b>		<b>506,473</b>	<b>439,000</b>
NOC		230,196	208,402
Indirect Cost		197,522	212,552
<b>Total Service Costs</b>		<b>3,166,017</b>	<b>3,363,122</b>
<b>Estimated Revenue</b>		<b>3,166,017</b>	<b>3,363,122</b>
<b>Rate</b>		<b>\$0.1971</b>	<b>\$0.1922</b>
		Per GB Per Month	Per GB Per Month

**\*Storage Area Network:** SAN is the disk storage allocated to both virtual and physical servers. Utilization of storage is measured in gigabytes allocated to the server disks.

## Category 19 DistSys Backup-Recovery

Unit of Service Utilization	DistSys Backup-Rec 37,395,504	DistSys Backup-Rec 39,000,000
<b>Budgeted Costs</b>	<b>FY19</b>	<b>FY20</b>
Direct Personnel	166,500	172,780
Fringe Benefits	74,867	77,751
<b>Personal Services</b>	<b>241,367</b>	<b>250,532</b>
107 Deduplication/Replication HW Lease	344,544	530,731
206 Data Domain Server/Storage Maintenance	250,000	136,000
207 DistSys Backup Admin Svr Maint (TSM Win)	10,000	10,000
363 EMC Software ELA	150,000	482,000
460 Tivoli Storage Management	196,000	193,683
478 Vrange Software Maintenance	25,000	25,000
503 Deduplication/Replct Purchase-DistBU-Rcvry	300,000	221,450
606 TSM Software Purchase		15,000
608 Vrange License Enhancement	15,000	15,000
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>1,290,544</b>	<b>1,628,864</b>
842 TSM Training\Travel\Tools for Staff	10,000	7,500
<b>General Support Expense Total</b>	<b>10,000</b>	<b>7,500</b>
Depreciation	75,000	45,000
Capital Purchases		(15,000)
<b>Total Capital Cost</b>	<b>75,000</b>	<b>30,000</b>
SAN	12,000	12,943
Server Support	12,000	10,696
VM	30,400	27,439
<b>Job Costs Total</b>	<b>54,400</b>	<b>51,078</b>
NOC	140,499	139,397
Indirect Cost	120,557	142,173
<b>Total Service Costs</b>	<b>1,932,367</b>	<b>2,249,543</b>
<b>Estimated Revenue</b>	<b>1,932,367</b>	<b>2,249,543</b>
<b>Rate</b>	<b>\$0.0517</b>	<b>\$0.0577</b>
	Per TB per month	Per TB per month

**\*DistSys Backup and Recovery:** DistSys backup and recovery provides data protection services for virtual and physical servers through backup software and storage infrastructure. Utilization is measured in gigabytes and is based on the amount of backup storage the server uses.

## Category 20 Indirect

Unit of Service	Indirect	Indirect
	FY19	FY20
<b>Budgeted Costs</b>		
Direct Personnel	920,754	1,030,660
Fringe Benefits	414,016	463,797
<b>Personal Services</b>	<b>1,334,770</b>	<b>1,494,457</b>
239 Batteries/UPS Maintenance	50,000	52,000
240 Generator Maintenance	2,000	2,000
808 Internet Expenses	58,635	55,000
802 MS Premier Support and other Support	20,000	120,000
811 Office Supplies, Equipment and Maintenance	70,000	75,000
812 Cell Phones	20,000	20,000
813 Electrical Distribution, Maintenance	30,000	20,000
814 Postage/Inter Agency Mail Delivery	1,500	1,500
816 Racks, Cabinets, Furniture & Building Changes	50,000	50,000
820 Subscriptions & Publications	7,000	1,000
821 Telephone Service and Equipment	70,000	60,000
822 Training & Professional Development	25,000	30,000
823 Travel	20,000	10,000
824 Resource Oversight	50,000	50,000
825 VPN - Access Charge	3,000	3,000
827 SSL Certificates	2,000	2,000
828 Service Deployment Appliance	20,000	20,000
831 Disaster Recovery Rental (Springnet)	470,000	495,000
857 Compco Software and Billing Expenses	40,000	40,000
858 Billing System	10,000	10,000
<b>General Support Expense Total</b>	<b>1,130,135</b>	<b>1,236,500</b>
Depreciation	121,000	120,000
Capital Purchases	-	
<b>Total Service Costs</b>	<b>2,585,905</b>	<b>2,850,957</b>

## Category 21 WAS

Unit of Service	WAS		WAS
Utilization	11,784		12,360
<b>Budgeted Costs</b>	<b>FY19</b>		<b>FY20</b>
Direct Personnel	134,111		105,337
Fringe Benefits	60,303		48,455
<b>Personal Services</b>	<b>194,414</b>		<b>153,792</b>
428 Tivoli WAS\ND	139,906		168,000
M05 WAS Encryption - Guardium			18,703
655 ILMT			3,632
646 License	50,370		
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>190,276</b>		<b>190,335</b>
845 WAS Training\Travel\Tools for Staff	8,916		14,476
<b>General Support Expense Total</b>	<b>8,916</b>		<b>14,476</b>
Depreciation	50,000		50,000
Capital Purchases	0		
<b>Total</b>	<b>50,000</b>		<b>50,000</b>
Dist BU Rec	14,000		8,687
SAN	18,460		28,308
SQL	600		
VM	149,600		137,112
<b>Job Costs Total</b>	<b>182,660</b>		<b>174,108</b>
NOC	52,647		41,275
Indirect	45,174		42,097
<b>Total Service Costs</b>	<b>753,501</b>		<b>666,082</b>
<b>Estimated Revenue</b>	<b>753,501</b>		<b>666,082</b>
<b>Rate</b>	<b>\$63.94</b>		<b>\$53.89</b>
	Per JVM Heap Size		Per JVM Heap Size

**\*WebSphere Application Server (WAS):** WAS is an Enterprise IBM Application platform that serves up JAVA Web Applications to users.

## Category 23 SQL

Unit of Service	SQL	SQL
Utilization-Base 37%	43,500	40,536
Utilization-Memory 3%	29,712	31,800
Utilization-Overage 41%	1,802,496	1,754,844
Utilization-License 19%	6,756	6,924
100%		
<b>Budgeted Costs</b>	<b>FY19</b>	<b>FY20</b>
Direct Personnel	550,033	556,051
Fringe Benefits	247,322	250,223
<b>Personal Services</b>	<b>797,354</b>	<b>806,274</b>
451 SA Licenses for SQL	270,000	762,068
601 Enterprise License for SQL (New)	670,972	-
640 SQL Software	326,037	662,477
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>1,267,009</b>	<b>1,424,545</b>
839 SQL Training \Travel\Tools for Staff	50,000	50,000
<b>General Support Expense Total</b>	<b>50,000</b>	<b>50,000</b>
Depreciation	58,000	11,400
Capital Purchases		
<b>Total Capital Cost</b>	<b>58,000</b>	<b>11,400</b>
AD	7,000	16,800
Dist BU Rec	100,000	111,593
Server Support	5,000	3,052
Remote Server Support	3,000	-
SAN	426,000	700,000
VM	385,542	445,000
<b>Job Costs Total</b>	<b>926,542</b>	<b>1,273,393</b>
NOC	260,511	252,562
Indirect Cost	223,533	257,592
<b>Total Allocated</b>	<b>484,044</b>	<b>510,154</b>
<b>Total Service Costs</b>	<b>3,582,949</b>	<b>4,075,765</b>
<b>Estimated Revenue</b>	<b>3,582,949</b>	<b>4,075,765</b>
	SQL Base (44%)	SQL Base (43%)
<b>Base Rate</b>	<b>\$35.42</b>	<b>\$37.20</b>
	SQL Memory (3%)	SQL Memory (4%)
<b>Memory Rate</b>	<b>\$4.82</b>	<b>\$3.85</b>
	SQL Overage (30%)	SQL Overage (30%)
<b>Overage Rate</b>	<b>\$0.90</b>	<b>\$0.95</b>
	SQL License (23%)	SQL License (23%)
<b>License Rate</b>	<b>\$121.98</b>	<b>\$111.84</b>

**\*SQL:** SQL is a Microsoft relational database solution that provides an agency the ability to store its business data for later retrieval and decision making. The rate is broken down as follows:

- **SQL Database Base** - Cost driven by the number of databases
- **SQL Database Overage** – Cost added to the when a database is over 1 gig.
- **SQL Database Memory** – This is an infrastructure cost passed directly to the dedicated application.
- **SQL Database License** – This is a software license cost passed directly to the dedicated application.

## Category 26 Server Support (Remote Server Support and Physical Server Support Combined)

Unit of Service Utilization		Server Support 3780	Server Support 4900
Budgeted Costs		FY19	FY20
Direct Personnel		262,770	255,928
Fringe Benefits		118,154	115,168
<b>Personal Services</b>		<b>380,924</b>	<b>371,096</b>
229	Remote Server Maintenance	10,000	6,000
340	Microsoft Server Operating System Subsc.	25,000	5,000
342	Symantec EndPoint Protection Subsc.-RSS	23,000	5,000
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>58,000</b>	<b>16,000</b>
Job Costs		-	
Dist BU Rec		6,000	4,729
MySQL		5,000	1,637
RSS			1,200
SAN		4,000	1,694
VM		24,800	9,108
<b>Total Job Costs</b>		<b>39,800</b>	<b>18,368</b>
NOC		40,244	28,720
Indirect Cost		34,532	29,292
<b>Total Service Costs</b>		<b>553,500</b>	<b>463,477</b>
<b>Estimated Revenue</b>		<b>553,500</b>	<b>463,477</b>
<b>Rate</b>	<b>Remote Srvr</b>	<b>\$100.31</b>	
	<b>Physical Srvr</b>	<b>\$129.72</b>	<b>\$94.59</b>
		Per Server Per Month	Per Server Per Month

**\*Server Support:** Server Support encompasses the infrastructure management of physical servers, both in the SDC and in remote offices. Infrastructure management includes installing the OS, maintaining the hardware, providing anti-virus and windows updates, and providing troubleshooting services when issues arise.

## Category 27 VDI

Unit of Service	VDI	VDI
Utilization	63,000	57,250
	5,250	2,004
	5,250	9,660

Budgeted Costs	FY19	FY20
Direct Personnel	-	-
Fringe Benefits	-	-
Personal Services	0	0
243 VDI Server Maintenance	10,000	20,000
244 VDI Storage Maintenance	47,000	51,000
469 VMWare Software Maintenance	375,000	129,869
470 Microsoft VDA Licensing (Subscription)	472,500	534,000
492 Office 365 ProPlus	448,257	495,000
516 VDI End-Point Device	315,000	112,500
517 VDI Server and Upgrades	95,000	215,000
518 VDI Storage and Upgrades	46,500	125,000
609 VMWare View Licensing	136,000	277,733
Hardware/Software Expense & Equipment Total	1,945,257	1,960,102
Depreciation	60,000	142,000
Capital Purchases		
Total Capital Cost	60,000	142,000
Estimated Revenue from Basic user (692 users @ \$11 rate)	(91,344)	(5,000)
AD		69
Dist BU Rec	800	955
SAN	34,400	40,665
SQL	10,000	9,398
VM	26,250	29,805
Job Costs Total	71,450	80,892
NOC	167,125	154,627
Indirect Cost	143,403	157,707
Total Service Costs	2,295,892	2,490,328
Total with Office 365 (for NOC/Indirect allocation)	2,295,892	2,490,328
Estimated Revenue	2,295,892	2,490,328
VDI Standard Rate per user per month	\$29.33	\$33.67
An additional charge per month for Office 365	\$9.06	\$8.65
VDI Basic (Pool) Rate per user per month	\$10.91	\$10.33

An additional charge of \$4 per Month extra for every one (1) gb of memory over our standard Configuration.

An additional charge of \$4 per Month extra for every one (1) additional virtual CPU over 2 vCPUs.

**\*Virtual Desktop Infrastructure (VDI):** VDI is the hosting of a desktop operating system within a virtual machine (VM). The VM runs on a hosted, centralized server. Access to a VDI can be achieved with various end-point devices.

**Category 28    sFTP**

Unit of Service	sFTP		sFTP
<b>Util</b>	<b>66,384</b>		<b>52,632</b>
<b>Budgeted Costs</b>	<b>FY19</b>		<b>FY20</b>
Direct Personnel	60,230		49,852
Fringe Benefits	27,083		22,416
<b>Personal Services</b>	<b>87,313</b>		<b>72,268</b>
439      SFTP Software Maintenance	9,071		13,606
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>9,071</b>		<b>13,606</b>
837      SFTP Training/Travel/Tools	2,120		1,970
<b>General Support Expense Total</b>	<b>2,120</b>		<b>1,970</b>
Dist BU Rec	3,565		4,426
SAN			3,599
SQL			566
VM			4,313
<b>Total Job Costs</b>	<b>3,565</b>		<b>12,904</b>
NOC	8,580		7,136
Indirect Cost	7,363		7,278
<b>Total Service Costs</b>	<b>118,011</b>		<b>115,162</b>
<b>Estimated Revenue</b>	<b>118,011</b>		<b>115,162</b>
<b>Rate</b>	<b>\$1.78</b>		<b>\$2.19</b>
	Per Job Per Month		Per Job Per Month

\***SFTP:** Secure File Transfer is a secure method of sharing files between State Staff and External Entities. This system may use automated process to transfer data from one location to another.

## Category 29 SharePoint

Unit of Service	SharePoint		SharePoint
Utilization	168		36,909
<b>Budgeted Costs</b>	<b>FY19</b>		<b>FY20</b>
Direct Personnel	141,504		151,831
Fringe Benefits	63,627		68,324
<b>Personal Services</b>	<b>205,131</b>		<b>220,155</b>
401 Axceler ControlPoint	26,000		26,208
481 Software -Maintenance -ShareGate			6,350
482 Software -Maintenance -MS SelectPlus	11,186		3,616
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>37,186</b>		<b>36,174</b>
840 SharePoint Training \Travel\Tools for Staff	23,300		27,000
848 VM Additional Charges	1,276		-
<b>General Support Expense Total</b>	<b>24,576</b>		<b>27,000</b>
Job Costs			
AD	5		37
Dist BU Rec	25,000		41,809
SAN	4,500		6,990
SQL	150,000		222,815
VM	25,000		32,650
Job Costs Total	<b>204,505</b>		<b>304,301</b>
NOC	39,628		41,623
Indirect Cost	34,003		42,452
<b>Total Service Costs</b>	<b>545,030</b>		<b>671,706</b>
<b>Estimated Revenue</b>	<b>545,030</b>		<b>671,706</b>
<b>Rate</b>	<b>\$3,244.22</b>		<b>\$18.20</b>
	Per month		Per GB Per Month

\*SharePoint: SharePoint provides a web-based platform for file sharing and process management.

### Category 33 SSRS

Unit of Service Utilization for Base	SSRS 1164	SSRS 300	SSRS 1260	SSRS 324
	FY19 Enterprise (40%*)	FY19 Dedicated (60%*)	FY20 Enterprise (40%*)	FY20 Dedicated (60%*)
<b>Budgeted Costs</b>				
Direct Personnel	30,993	46,489	28,013	42,019
Fringe Benefits	13,936	20,904	12,886	19,329
<b>Personal Services</b>	<b>44,929</b>	<b>67,393</b>	<b>40,899</b>	<b>61,348</b>
458 DistSys SSRS Software Maintenance	13,612	20,418	10,800	16,200
885 Neodynamic Barcode	1,400	2,100	648	972
M06 SSRS Encryption- Guardium			241	362
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>15,012</b>	<b>22,518</b>	<b>11,689</b>	<b>17,534</b>
853 SSRS Training\Travel\Tools for Staff	1,249	1,874	2,389	3,584
<b>General Support Expense Total</b>	<b>1,249</b>	<b>1,874</b>	<b>2,389</b>	<b>3,584</b>
<b>Job Costs</b>				
SAN			1,775	
SSRS - VM	15,709		14,335	
SSRS - Backup			1,617	
SSRS - Enterprise DB	4,130		6,929	
<b>Job Costs</b>	<b>19,839</b>		<b>24,655</b>	<b>-</b>
NOC	5,811	8,717	4,593	6,889
Indirect Cost	4,986	7,479	4,684	7,026
<b>Allocated Costs</b>	<b>10,797</b>	<b>16,196</b>	<b>9,277</b>	<b>13,915</b>
<b>Total Service Costs</b>	<b>91,826</b>	<b>107,980</b>	<b>88,909</b>	<b>96,381</b>
<b>Estimated Revenue</b>	<b>\$91,826</b>	<b>\$107,980</b>	<b>\$88,909</b>	<b>\$96,381</b>
<b>Rate for Base</b>	<b>\$78.89</b>	<b>\$359.93</b>	<b>\$70.56</b>	<b>\$297.47</b>
	Per Enterprise Instance/month	Per Dedicated Instance/month	Per Enterprise Instance/Month	Per Dedicated Instance/Month

**\*SQL Server Reporting Services (SSRS):** SSRS is the Enterprise Reporting tool for the State. The system allows users to create, deploy and manage reports.

## Category 34 JIRA

Utilization	JIRA 13,836	JIRA 12,132
<b>Budgeted Costs</b>	<b>FY19</b>	<b>FY20</b>
Direct Personnel	20,143	22,012
Fringe Benefits	9,057	10,125
<b>Personal Services</b>	<b>29,200</b>	<b>32,137</b>
483 JIRA Software Maintenance plus plugin	12,688	14,104
886 Priority Support		5,000
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>12,688</b>	<b>19,104</b>
886 Priority Support per server	5,000	-
880 JIRA Training\Travel\Tools for Staff	1,123	6,326
<b>General Support Expense Total</b>	<b>6,123</b>	<b>6,326</b>
Dist BU Rec	-	271
SAN	-	577
SQL	2,232	1,498
VM	5,724	1,093
<b>Job Costs Total</b>	<b>7,956</b>	<b>3,439</b>
NOC	4,729	4,321
Indirect Cost	4,058	4,407
<b>Total Allocated</b>	<b>5,724</b>	<b>8,728</b>
<b>Total Service Costs</b>	<b>64,754</b>	<b>69,734</b>
	<b>64,754</b>	<b>69,734</b>
	<b>\$4.68</b>	<b>\$5.75</b>
	Per User Per Month	Per user Per Month

\*JIRA: JIRA is a software tool that can manage team activity and track issues.

## Category 42 OnBase

Unit of Service	OnBase	OnBase
Utilization	59,880	50,784

Budgeted Costs	FY19	FY20
Direct Personnel	290,856	279,756
Fringe Benefits	130,783	125,890
<b>Personal Services</b>	<b>421,639</b>	<b>405,646</b>
498 Enterprise OnBase Licenses	240,000	240,000
622 New Enterprise OnBase Modules	40,000	32,000
539 Scanner for OnBase		12,500
M01 Encryption Maintenance	7,700	7,700
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>287,700</b>	<b>292,200</b>
873 Staff Training	26,200	26,200
<b>General Support Expense Total</b>	<b>26,200</b>	<b>26,200</b>
Depreciation	13,000	18,167
Capital Purchases		(12,500)
<b>Total Capital Cost</b>	<b>13,000</b>	<b>5,667</b>
AD	10	300
Dist BU Rec	600	2,764
SAN	10,650	14,608
SQL	14,500	20,644
VDI	2,800	1,335
VM	51,200	43,389
<b>Job Costs Total</b>	<b>79,760</b>	<b>83,040</b>
NOC	69,725	57,569
Indirect Cost	59,828	58,716
<b>Total Service Costs</b>	<b>957,852</b>	<b>929,038</b>
<b>Estimated Revenue</b>	<b>957,852</b>	<b>929,038</b>
<b>Rate</b>	<b>\$16.00</b>	<b>\$18.29</b>
	Per User/Month	Per User/Month

**\*OnBase ECM:** OnBase is State of MO standard Enterprise-level Electronic Content Management (ECM) system used for the storage, retrieval and management of electronic content. Billing is based on "named" users.

## Category 43 Web Utility

Unit of Service	Web Utility	Web Utility
<b>Utilization</b>	<b>54,720</b>	<b>53,988</b>
<b>Budgeted Costs</b>	<b>FY19</b>	<b>FY20</b>
Direct Personnel	-	
Fringe Benefits	-	
<b>Personal Services</b>	-	
442 MicroSoft Team Foundation Subscription	2,565	-
453 SynRecovery software	1,000	1,000
467 Load Balancer Maintenance	-	115,296
489 uDeploy software Maintenance	50,000	74,425
494 Tidal Maintenance	56,442	44,910
495 Tidal License	3,850	-
499 AppViewX Software Maintenance	15,392	15,392
534 F5 appliance	75,000	
647 uDeploy additional Agents	60,000	15,000
M02 Udeploy Test License Purchase	70,000	-
648 Cert Costs		509
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>334,249</b>	<b>266,532</b>
869 Web Utility Training\Travel\Tools	59,144	32,220
<b>General Support Expense Total</b>	<b>59,144</b>	<b>32,220</b>
Depreciation	25,000	90,459
Capital Purchases	(75,000)	
<b>Total Capital Cost</b>	<b>(50,000)</b>	<b>90,459</b>
AD		7,887
Dist BU Rec		13,954
SAN		13,065
SQL		79,451
VM		71,606
ZOS E Data Backup		220
<b>Total Job Costs</b>	<b>81,728</b>	<b>186,183</b>
NOC	35,786	40,757
Indirect Cost	30,707	41,568
<b>Total Service Costs</b>	<b>491,613</b>	<b>657,719</b>
<b>Estimated Revenue</b>	<b>491,613</b>	<b>657,719</b>
<b>Rate</b>	<b>\$8.98</b>	<b>\$12.18</b>
	<b>Per site per month</b>	<b>Per site per month</b>

**Web Utility:** Web Utility is an enterprise service which includes utility products related to web applications and infrastructure. Products in this category include AppViewX, (a certificate management tool), SynRecovery, uDeploy (an application deployment automation tool), TFS, CSS, SVN, and GIT (all Code Repositories), Print Services, and Tidal (a batch scheduler service), and load balancing services.

## Category 44    MYSQL

Unit of Service		MySQL Base	MySQL Base
<b>Utilization - Base</b>	<b>97.00%</b>	<b>5,028</b>	<b>3,564</b>
<b>Memory GB</b>		<b>1,104</b>	<b>-</b>
<b>Overage GB</b>	<b>3.00%</b>	<b>7,248</b>	<b>6,924</b>
<b>License</b>		<b>144</b>	<b>-</b>
<b>Budgeted Costs</b>		<b>FY19</b>	<b>FY20</b>
Direct Personnel		50,133	36,008
Fringe Benefits		22,542	16,191
<b>Personal Services</b>		<b>72,675</b>	<b>52,198</b>
468     SQL		109,200	107,625
641     MySQL Software		20,801	36,809
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>130,001</b>	<b>144,434</b>
881     MySQL Training \Travel\Tools for Staff		5,000	5,000
<b>General Support Expense Total</b>		<b>5,000</b>	<b>5,000</b>
Depreciation		36,000	37,000
Capital Purchases			
<b>Total Capital Cost</b>		<b>36,000</b>	<b>37,000</b>
Job Costs			
Dist BU Rec		4,000	5,620
Server Support		2,000	1,017
SAN		6,390	10,139
VM		18,750	22,082
<b>Job Costs Total</b>		<b>31,140</b>	<b>38,858</b>
NOC		23,103	19,655
Indirect Cost		19,823	20,047
Total Allocated		42,926	39,702
<b>Total Service Costs</b>		<b>317,742</b>	<b>317,193</b>
<b>Estimated Revenue</b>		<b>317,742</b>	<b>317,193</b>
<b>Base Rate</b>		<b>\$88.78</b>	<b>\$86.33</b>
<b>Overage Rate</b>		<b>\$5.70</b>	<b>\$1.37</b>

**\*MYSQL:** SQL is an open-source relational database solution that provides an agency the ability to store its business data for later retrieval and decision making. The rate is broken down as follows:

- **MYSQL Database Base** - Cost driven by the number of databases
- **MYSQL Database Overage** – Cost added to the when a database is over 1 gig.

## Category 45 Web Hosting

Unit of Service	Web Hosting	Web Hosting
<b>Utilization</b>	<b>9,360</b>	<b>8,880</b>
<b>Budgeted Costs</b>	<b>FY19</b>	<b>FY20</b>
Direct Personnel	-	
Fringe Benefits	-	
<b>Personal Services</b>	-	-
537 Plesk License Purchase	2,520	2,520
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>2,520</b>	<b>2,520</b>
874 SSL Training\Travel\Tools for Staff	-	6,018
<b>General Support Expense Total</b>	-	<b>6,018</b>
Job Costs	-	
Dist BU Rec	-	3,830
SAN	-	12,050
VM	99,513	58,015
<b>Job Costs Total</b>	<b>99,513</b>	<b>73,895</b>
NOC	8,577	5,839
Indirect Cost	7,360	5,955
<b>Total Service Costs</b>	<b>117,970</b>	<b>94,228</b>
<b>Estimated Revenue</b>	<b>117,970</b>	<b>94,228</b>
<b>Rate</b>	<b>\$12.60</b>	<b>\$10.61</b>
	Per site Per month	Per site Per month

**\*Web Hosting:** Web Hosting is an Enterprise category that includes Shared Web Hosting platform for IIS/.Net and LAMP Applications.

## Category 46 Network Operations Center (NOC)

Unit of Service	NOC	NOC
	FY19	FY20
<b>Budgeted Costs</b>		
Direct Personnel	1,009,568	1,178,397
Fringe Benefits	453,951	530,279
<b>Personal Services</b>	<b>1,463,519</b>	<b>1,708,676</b>
345 SiteScan	5,000	5,000
349 Lansweeper	911	911
351 Kiwi Syslog	2,211	291
352 Microsoft System Center Suite		7,500
353 Solarwinds NPM	8,563	9,186
354 Solarwinds SAM	6,337	7,397
355 Solarwinds NTA	5,173	5,536
356 Orion Polling Engines	68,000	68,840
357 Orion Web Server	92	101
361 Logging Maintenance	170,000	170,000
364 Solarwinds WPM	12,865	3,450
491 ITSM Tool Maintenance	145,000	201,600
532 NOC - Desktop Computer Equipment	3,200	3,200
618 Microsoft System Center Suite	10,000	20,000
628 Logging Software	450,000	
629 ITSM Tool Software	225,000	
657 Software Delivery Tool		195,000
654 Rave Texting	25,000	25,000
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>1,137,352</b>	<b>723,013</b>
872 NOC Training \Travel\Tools	40,500	40,000
884 ITSM Training		22,000
<b>General Support Expense Total</b>	<b>40,500</b>	<b>62,000</b>
Depreciation	60,000	131,000
Capital Purchases	(16,000)	
<b>Total Capital Cost</b>	<b>44,000</b>	<b>131,000</b>
AD		80
Dist BU Rec	2,894	5,989
Server Support	1,642	-
SAN	46,860	69,810
SQL		733
VDI	917	1,340
VM	140,800	92,646
<b>Total Job Cost</b>	<b>193,113</b>	<b>170,598</b>
<b>Total Service Costs</b>	<b>2,878,484</b>	<b>2,795,286</b>

\*NOC: Network Operations Center (NOC) operates 24x7 and uses cutting edge technology, equipment, and tools to monitor critical computing systems and network infrastructure.

## Category 47 Tableau

Unit of Service	Tableau	Tableau
Utilization	1704	1572
Budgeted Costs	FY19	FY20
Direct Personnel	26,785	28,395
Fringe Benefits	12,044	13,062
<b>Personal Services</b>	<b>38,829</b>	<b>41,457</b>
644 Tableau Interactor License Maintenance	23,119	34,471
M03 Tableau (1 Prod - Encryption License - Estimate)	19,744	4,826
M04 Tableau Desktop Lic & Maintenance	395	790
645 Additional 25 Desktop Interactor Licenses	22,107	26,974
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>65,365</b>	<b>67,061</b>
883 Tableau Training/Tools/travel	3,988	3,151
<b>General Support Expense Total</b>	<b>3,988</b>	<b>3,151</b>
Depreciation	7,000	-
Capital Purchases	(17,665)	-
<b>Total Capital Cost</b>	<b>(10,665)</b>	<b>-</b>
Job Costs		
Dist BU Rec	500	421
SAN	1,136	1,039
VDI	4,000	1,281
VM	9,885	5,801
<b>Job Costs Total</b>	<b>15,521</b>	<b>8,542</b>
NOC	10,399	8,515
Indirect Cost	8,923	8,684
<b>Total Service Costs</b>	<b>132,360</b>	<b>137,410</b>
<b>Estimated Revenue</b>	<b>132,360</b>	<b>137,410</b>
<b>Rate</b>	<b>\$77.68</b>	<b>\$87.41</b>
	Per User Per Month	Per User Per Month

**\*Tableau:** Tableau is the State's Enterprise Statistical Analysis platform. It can be used to connect to any data source and present that data through a browser interface.

## Category 48 DB2LUW

Unit of Service		DB2LUW	DB2LUW
Util Base	66%	5,352	5,340
Memory	1%	3,168	3,336
Overage	16%	120,972	117,276
License	17%	576	624
Total	100%		
<b>Budgeted Costs</b>		<b>FY19</b>	<b>FY20</b>
Direct Personnel		160,066	151,329
Fringe Benefits		71,973	68,098
<b>Personal Services</b>		<b>232,039</b>	<b>219,427</b>
473 DB2 Maintenance		558,000	702,778
<b>Hardware/Software Expense &amp; Equipment Total</b>		<b>558,000</b>	<b>702,778</b>
882 DB2 LUW Training\Travel\Tools for Staff		47,215	42,694
<b>General Support Expense Total</b>		<b>47,215</b>	<b>42,694</b>
Job Costs			
Dist BU Rec		20,000	35,577
SAN		36,000	55,367
VM		40,000	47,318
<b>Job Costs Total</b>		<b>96,000</b>	<b>138,262</b>
NOC		78,454	78,140
Indirect Cost		67,318	79,696
<b>Total Service Costs</b>		<b>1,079,027</b>	<b>1,260,997</b>
<b>Estimated Revenue</b>		<b>1,079,027</b>	<b>1,260,997</b>
<b>Base Rate</b>		<b>\$133.06</b>	<b>\$155.85</b>
<b>Memory Rate</b>		<b>\$3.11</b>	<b>\$3.78</b>
<b>Overage Rate</b>		<b>\$1.43</b>	<b>\$1.72</b>
<b>License Rate</b>		<b>\$309.10</b>	<b>\$343.54</b>

**\*DB2LUW:** DB2LUW is an IBM relational database solution that provides an agency the ability to store its business data for later retrieval and decision making. The rate is broken down as follows:

- **DB2LUW Database Base** - Cost driven by the number of databases
- **DB2LUW Database Overage** – Cost added to the when a database is over 1 gig.
- **DB2LUW Database Memory** – This is an infrastructure cost passed directly to the dedicated application.
- **DB2LUW Database License** – This is a software license cost passed directly to the dedicated application.

## Category 49 BOX

Unit of Service	BOX	BOX
	401	530
<b>Utilization</b>	<b>4,812</b>	<b>6,360</b>
<b>Budgeted Costs</b>	<b>FY19</b>	<b>FY20</b>
Direct Personnel	12,560	10,673
Fringe Benefits	5,648	4,910
<b>Personal Services</b>	<b>18,208</b>	<b>15,583</b>
538 Box software subscription For Enterprise	62,400	95,591
<b>Hardware/Software Expense &amp; Equipment Total</b>	<b>62,400</b>	<b>95,591</b>
887 BOX Training\Travel\Tools for Staff	7,659	7,020
<b>General Support Expense Total</b>	<b>7,659</b>	<b>7,020</b>
NOC	7,420	8,372
Indirect Cost	6,367	8,539
<b>Total Service Costs</b>	<b>102,054</b>	<b>135,104</b>
<b>Estimated Revenue</b>	<b>102,054</b>	<b>135,104</b>
<b>Rate</b>	<b>\$21.21</b>	<b>\$21.24</b>
	<b>Per User Per Month</b>	<b>Per User Per Month</b>

\***BOX.com:** BOX.com is a cloud-based file collaboration/sharing/storage solution, which allows internal and external users access to data.

## Five Year Rate Summary

Num.	Category Description	FY20	FY19	FY18	FY17	FY16
1	Laser Feet Printed	0.0446	0.043	0.030	0.0287	0.0330
1	Lines (Impact) Printed/1000	0.5319	0.453	0.354	0.3422	0.3942
1	Laser Feet Printed/Duplex	0.0357	0.034	0.024	0.0230	0.0264
2	CPU Service Units/1000	0.0069	0.0071	0.0058	0.0066	0.0068
3	CICS Transactions	0.0009	0.0009	0.0009	0.0010	0.0010
5	zOS Enterprise Data Backup/GB Day	0.0052	0.0040	0.0032	0.0042	0.0039
7.1	AD User ID per Month	1.01	1.43	1.28	0.37	0.94
7.2	AD & Exchange Mailbox per Month	5.92	6.40	5.72	4.75	4.75
8	zOS Data Storage/GB Day	0.085	0.085	0.086	0.0455	0.1457
10	zOS IDMS Run Units	0.0040	0.0035	0.004	0.0043	0.0038
11	zOS DB2 Service Units/1000	0.0037	0.0033	0.0030	0.0024	0.0026
14	All Fusion CPU Service Units/1000	-	-	0.021	0.0156	0.0344
15	VM per Image per Month	72.63	82.77	103.40	105.33	99.70
16	SAN per 1GB per Month	0.1922	0.1971	0.2481	0.2450	0.1704
17	Physical Server Support /Month	-	129.72	86.02	149.28	87.81
19	DistSys Backup-Recovery/TB Day	0.0577	0.0517	0.0020	0.0018	0.0028
21	WAS per JVM Heap Size	53.89	63.94	45.48	42.46	1,131.55
23	SQL per Base Unit per Month	37.20	35.42	28.37	28.48	27.34
23	SQL Memory per GB per Month	3.85	4.82	4.77	4.30	5.51
23	SQL Overage per GB per Month	0.95	0.90	0.87	0.98	0.98
23	SQL License per License per Month	111.84	121.98	98.64	106.76	108.30
26	Server Support/Srvr/Month (FY19-Remote)	94.59	100.31	167.84	120.97	92.77
27	VDI per Virtual Desktop per Month	33.67	29.33	43.64	32.84	26.54
27	VDI - Office 365	\$8.65	9.06			
27	RDP Pool Users VDI per Month	\$10.33	10.91	10.91	8.21	6.64
28	sFTP Units	2.19	1.78	1.60	0.00	4.64
29	SharePoint/GB/Month	18.20	3,244.22	1,753.78	1,931.20	300.69
32	Enterprise Fax (Moved to Telecom)	-	0.0395	0.0620	0.0680	0.0279
33	SSRS per Enterprise Instance	70.56	78.89	67.07	107.71	992.68
33	SSRS Per Dedicated Instance	297.47	359.93			
34	JIRA	5.75	4.68	4.16	5.46	1.52
42	OnBase ECM	18.29	18.86	12.39	22.57	
43	Web Utility (Web Combined in FY17)	12.18	8.98	9.08	27.04	
44	MySQL Base	86.33	88.78	39.24	31.72	
44	MySQL Memory			3.44	3.15	
44	MySQL Overage	1.37	5.71	1.38	0.75	
44	MySQL License		-	286.57	315.28	
45	Web Hosting	10.61	12.60	5.08		
47	Tableau	87.41	77.68	92.39	87.47	
48	DB2LUW Base	155.85	133.06	31.10		
48	DB2LUW Memory	3.78	3.11	4.70		
48	DB2LUW Overage	1.72	1.43	0.89		
48	DB2LUW License	343.54	309.10	191.49		
49	BOX	21.24	21.21	20.38		

Rate	\$	0.0071	\$	0.0069	\$	0.0009	\$	0.0009	\$	0.0848	\$	0.0848	\$	0.0033	\$	0.0037	\$	0.0040	\$	0.0052	\$	63.94	\$	53.89	\$	0.0035	\$	0.0040
	CPU	FY19	CPU	FY20	CICS	FY19	CICS	FY20	Z Data Strg	FY19	Z Data Strg	FY20	ZOS DB2	FY19	ZOS DB2	FY20	ZOS Data BU	FY19	ZOS Data BU	FY20	WAS	FY19	WAS	FY20	ZOS IDMS	FY19	ZOS IDMS	FY20
Agency																												
Senate	1,677	258	60	70										806	364													
House Rep	1,148	18	96	118										499	219													
Legis Rsrch	30	29	16	14										11	25													
SOS	1,540	1,402	348	326										607	783			4		0						5		0
Auditor	392	818	41	44										62	107			383		200								
Treasurer	248	50	66	100										51	72			6		3						94		91
AGO	531	528	169	190										199	221													
OA	681,862	616,504	146,719	266,452										153,626	181,618			30,391		35,373			13,812	14,539				33
SDC/Growth	17,622	824	-	5,606										162,564	97,063			210,313		256,753			(25,321)	227		38,429		148,202
Agriculture	919	1,085	388	337										261	318													
Insurance	2,240	2,190	301	322										934	918			17		8						24		25
Consrvtm	2,288	-	709	625										468	459											470		642
DED	8,737	12,019	598	575										1,197	1,428			412		168						210		149
DESE	6,508	7,522	1,699	1,519										2,515	2,563													
Higher Ed	929	-	108	100										276	238									44,405				
DHSS	79,352	83,372	20,763	23,887										3,150	16,430			3,570		1,670			38,366			48,879		52,013
MODOT	20,272	17,335	5,657	5,590										5,154	7,802			2		1						160		160
DOLIR	11,358	11,731	847	454										795	764			52,481		18,111			227,892	176,436		988		1,193
DMH	85,034	98,247	5,708	5,597										35,050	43,937			4,814		2,131						176		202
DNR	34,751	35,852	1,949	1,677										13,889	12,648			2,960		1,430			80,568	81,590				
DPS/MSHP	153,745	130,975	247,650	260,541										12,663	14,469			154		71						109,399		75,751
Revenue	1,589,921	1,315,963	113,476	119,904										283,190	440,174			141,383		81,344			62,920	47,100		513,297		458,334
DSS	4,192,873	4,485,627	1,257,974	1,215,532										1,884,372	2,189,148			226,211		120,979						770,392		723,025
DOC	19,123	20,581	8,362	9,054										6,240	6,798								355,266	301,785				
Other	7,796	22	2,288	496										3,586	6,811			3		1						1,022		50,519
total	6,920,895	6,842,950	1,815,990	1,919,128										2,572,163	3,025,376			673,104		518,244			753,502	666,082		1,483,547		1,510,340

Rate	mult rates	mult rates		\$	0.0517	\$	0.0577	\$	6.44	\$	5.92	\$	1.0058	\$	0.1971	\$	0.1922	\$	82.77	\$	72.63	\$	105.64	\$	169.33	\$	94.59
	Print	Print			BackUp Rec		BackUp Rec		AD-Exchange		Exchange		AD		SAN		SAN		VM		VM		Remote Svr		Phy Svr		Svr Sprt
Agency	FY19	FY20			FY20		FY20		FY19		FY20		FY20		FY19		FY20		FY19		FY20		FY19		FY19		FY20
Senate	-	-	-	-	-	-	-	52	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
House Rep	-	-	-	-	-	-	-	69	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Legis Rsrch	-	-	-	-	-	-	-	52	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SOS	-	-	-	-	-	-	-	190	-	-	-	151	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Auditor	12	7,188	330	509	509	509	509	1,984	-	1,984	-	813	-	813	189	189	254	254	2,980	-	2,615	-	-	-	-	-	-
Treasurer	-	-	4,978	10,669	10,669	10,669	10,669	437	-	437	-	573	-	573	10,670	10,670	12,280	12,280	14,153	-	13,945	-	-	-	-	-	-
AGO	-	-	-	-	-	-	-	3,414	-	3,414	-	2,239	-	2,239	71	71	69	69	1,986	-	1,743	-	-	-	-	-	-
OA	26,038	13,927	88,170	79,640	79,640	79,640	79,640	328,880	-	328,880	-	158,891	-	34,696	259,151	259,151	222,293	222,293	111,616	-	235,474	-	6,621	-	63,951	-	70,751
SDC/Growth	329,248	-	586,327	314,727	314,727	314,727	314,727	-	-	-	19,713	68,021	-	68,021	-	-	-	-	-	-	-	-	60,000	8,388	-	73,968	-
Agriculture	-	-	13,928	19,431	19,431	19,431	19,431	35,459	-	35,459	-	31,920	-	6,429	12,483	12,483	12,725	12,725	4,966	-	3,486	-	2,523	-	-	-	1,135
Insurance	-	-	25,435	41,379	41,379	41,379	41,379	56,593	-	56,593	-	52,060	-	9,153	29,345	29,345	33,594	33,594	19,368	-	15,761	-	-	-	-	-	-
Constrvtn	3	-	-	-	-	-	-	169	-	169	-	-	-	199	-	-	-	-	-	-	-	-	-	-	-	-	-
DED	966	863	21,681	27,164	27,164	27,164	27,164	69,493	-	69,493	-	51,125	-	12,269	23,533	23,533	27,564	27,564	33,521	-	19,030	-	25,239	2,032	-	10,026	-
DESE	-	-	58,199	77,161	77,161	77,161	77,161	129,656	-	129,656	-	110,158	-	24,402	48,999	48,999	51,981	51,981	59,842	-	51,278	-	7,276	-	-	5,675	-
Higher Ed	1	-	39,045	75,515	75,515	75,515	75,515	7,982	-	7,982	-	5,766	-	1,672	2,294	2,294	2,429	2,429	1,986	-	1,743	-	-	-	-	-	-
DHSS	976	-	104,530	139,812	139,812	139,812	139,812	261,756	-	261,756	-	226,047	-	50,708	80,772	80,772	90,923	90,923	125,891	-	104,445	-	9,837	12,700	-	14,377	-
MODOT	0	-	-	52,240	52,240	52,240	52,240	1,448	-	1,448	-	-	-	1,155	-	-	106,190	106,190	-	-	141,342	-	-	-	-	-	-
DOLIR	228,182	209,659	128,133	141,900	141,900	141,900	141,900	73,863	-	73,863	-	59,638	-	11,593	101,887	101,887	101,654	101,654	74,492	-	60,140	-	4,589	-	-	2,270	-
DMH	-	-	116,300	237,368	237,368	237,368	237,368	679,909	-	679,909	-	523,087	-	179,919	116,063	116,063	108,039	108,039	144,762	-	135,532	-	33,808	-	-	28,187	-
DNR	-	-	126,098	148,134	148,134	148,134	148,134	164,189	-	164,189	-	137,343	-	34,470	131,351	131,351	140,889	140,889	64,559	-	57,089	-	10,458	8,128	-	13,810	-
DPS/MSHP	-	-	11,549	14,089	14,089	14,089	14,089	134,774	-	134,774	-	139,486	-	38,367	36,783	36,783	24,031	24,031	30,790	-	23,097	-	10,141	-	-	10,215	-
Revenue	265,929	231,693	326,155	510,433	510,433	510,433	510,433	153,519	-	153,519	-	127,658	-	35,911	149,689	149,689	198,091	198,091	254,016	-	294,161	-	2,256	6,096	-	4,540	-
DSS	1,247,218	1,703,482	236,230	325,408	325,408	325,408	325,408	719,042	-	719,042	-	632,842	-	134,369	632,582	632,582	736,729	736,729	152,211	-	148,606	-	131,417	60,959	-	141,881	-
DOC	-	-	43,691	32,137	32,137	32,137	32,137	1,013,452	-	1,013,452	-	928,141	-	162,489	49,542	49,542	55,621	55,621	32,776	-	27,891	-	83,018	4,064	-	79,831	-
Other	4	-	1,585	1,826	1,826	1,826	1,826	1,277	-	1,277	-	11,224	-	5,411	2,010	2,010	15,206	15,206	3,973	-	6,101	-	-	-	-	6,810	-
Total	2,098,577	2,166,812	1,932,367	2,249,543	2,249,543	2,249,543	2,249,543	3,837,657	-	3,837,657	-	3,215,100	-	815,085	1,687,414	1,687,414	1,940,562	1,940,562	1,133,889	-	1,343,480	-	387,182	166,318	-	463,477	-

Rate	\$38.39	\$42.32	\$ 35.42	\$ 37.20	\$ 3,244,224					\$	4.68	\$	5.75	\$	16.00	\$	18.29		
Agency	VDI	VDI	SQL Total	SQL Total	Share PT	Share PT	SSRS	SSRS	SSRS	JIRA	JIRA	JIRA	JIRA	OnBase	OnBase	OnBase	MySQL	MySQL	MySQL
	FY19	FY20	FY19	FY20	FY19	FY20	FY19	FY20	FY20	FY19	FY19	FY20	FY20	FY19	FY19	FY20	FY19	FY20	FY20
Senate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
House Rep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Legis Rsrch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SOS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Auditor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Treasurer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AGO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	345
OA	497,129	451,042	609,296	301,494	77,861	91,372	25,560	27,096	27,096	6,908	7,173.53	30,761	20,416	150,399	231,387.82				
SDC/Growth	280,973	-	-	-	-	-	-	-	-	211	-	-	-	-	-	-	-	-	-
Agriculture	13,259	12,188	44,336	49,491	38,931	38,931	17,040	17,782	17,782	393	483	-	146	-	-	-	-	-	-
Insurance	78,529	88,105	36,092	46,155	38,931	2,213	-	-	-	-	-	2,303	14,013	-	-	-	-	-	-
Consrvth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DED	62,993	36,689	204,816	73,224	38,931	44,120	4,728	3,387	3,387	1,418	1,977	4,943	10,245	16,908	17,567				
DESE	15,644	14,344	250,527	249,193	38,931	11,579	2,835	16,819	16,819	5,069	5,001	11,373	14,123	-	-	-	-	-	-
Higher Ed	98	1,016	3,310	2,067	38,931	3,478	-	-	-	786	1,334	6,622	7,903	-	-	-	-	-	-
DHSS	158,818	211,759	238,307	228,003	38,931	42,768	3,787	3,387	3,387	-	-	-	-	-	-	-	76,693	22,618	-
MODOT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DOLIR	28,723	13,960	107,671	93,529	38,931	738	3,787	3,387	3,387	8,073	9,749	1,344	16,428	18,111	9,324				
DMH	59,299	40,244	881,976	933,046	38,931	73,641	3,780	21,235	21,235	-	-	30,137	34,832	13,489	3,328				
DNR	42,146	36,181	50,518	69,754	38,931	19,368	-	-	-	12,117	15,290	14,445	7,647	7,432	5,649				
DPS/MShp	27,172	30,843	45,367	47,855	38,931	184	-	-	-	-	-	3,647	4,830	6,304	4,704				
Revenue	106,279	66,900	792,391	1,221,492	38,931	48,515	26,492	88,810	88,810	-	-	97,993	121,069	2,930	-				
DSS	1,014,585	1,154,456	235,425	241,073	38,931	333,730	3,787	3,387	3,387	29,779	28,728	577,543	677,387	-	1,381				
DOC	29,345	120,991	23,120	20,340	-	-	-	-	-	-	-	-	-	-	15,017				
Other	3,685	3,555	-	8,546	-	-	-	-	-	-	-	-	-	-	5,870				
Total	2,418,675	2,282,272	3,523,153	3,585,261	545,030	671,706	91,795	185,291	185,291	64,754	69,734	781,110	929,038	317,742	317,193				

Rate			\$	77.68	\$	87.41	\$	8.98	\$	12.18	\$	12.60	\$	10.61	\$	1.78	\$	2.19	\$	21.21	\$	21.24
	DB2LUW	DB2LUW		Tableau		Tableau		Web Utility		Web Utility		WebHost		WebHost		sFTP		sFTP		BOX		BOX
Agency	FY19	FY20		FY19		FY20		FY19		FY20		FY19		FY20		FY19		FY20		FY19		FY20
Senate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
House Rep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Legis Rsrch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SOS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	-	-	-	-
Auditor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	232	-	-	-	-
Treasurer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AGO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179	-	-	-	-
OA	15,023	16,832	-	-	-	-	-	38,704	-	58,014	-	41,176	-	29,393	-	7,561	-	12,100	-	18,706	-	26,214
SDC/Growth	-	-	-	-	-	-	-	-	-	13,986	-	378	-	-	-	23,936	-	13,496	-	-	-	-
Agriculture	7,986	3	-	-	-	-	-	9,056	-	12,231	-	6,882	-	6,324	-	2,120	-	2,814	-	1,781	-	2,549
Insurance	-	-	-	-	-	-	-	1,833	-	3,314	-	2,269	-	2,886	-	2,873	-	7,457	-	1,272	-	2,039
Consrvtn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	-	109	-	-	-	-
DED	-	-	-	932	-	1,049	-	3,450	-	6,457	-	907	-	658	-	2,675	-	3,510	-	14,634	-	15,252
DESE	-	-	-	-	-	-	-	35,038	-	30,773	-	2,231	-	1,443	-	1,271	-	1,890	-	1,781	-	2,889
Higher Ed	19,152	18,702	-	-	-	-	-	2,803	-	25,559	-	605	-	318	-	1,191	-	1,659	-	254	-	977
DHSS	-	-	-	-	-	-	-	231,144	-	288,852	-	-	-	191	-	2,766	-	3,602	-	9,035	-	21,923
MODOT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	694	-	2,950	-	-	-	-
DOLIR	430,869	314,084	-	-	-	-	-	12,183	-	18,883	-	1,059	-	1,146	-	2,675	-	4,656	-	-	-	5,736
DMH	-	-	-	-	-	-	-	20,484	-	28,776	-	17,544	-	14,452	-	1,143	-	1,440	-	1,400	-	2,592
DNR	235,933	299,239	-	-	-	-	-	12,722	-	15,789	-	7,411	-	5,815	-	5,991	-	7,811	-	4,454	-	6,330
DPS/MShp	-	-	-	-	-	-	-	5,606	-	8,455	-	6,768	-	6,027	-	3,006	-	2,709	-	2,799	-	1,699
Revenue	-	-	-	25,167	-	20,979	-	67,058	-	85,790	-	28,774	-	23,642	-	44,274	-	24,318	-	509	-	2,294
DSS	320,213	368,438	-	61,286	-	113,460	-	43,447	-	52,361	-	756	-	849	-	13,628	-	22,016	-	1,272	-	1,614
DOC	27,598	13,092	-	-	-	-	-	8,086	-	8,479	-	1,210	-	1,082	-	1,581	-	1,978	-	5,090	-	5,396
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	256	-	210	-	-	-	3,356
Total	1,056,774	1,030,390	-	87,385	-	135,487	-	491,613	-	657,719	-	117,970	-	94,228	-	118,011	-	115,162	-	62,988	-	100,861

Rate	\$	0.0395		
Agency	FY19	FY19 Total	Annual	FY20 Total
Senate	-	2,595		705
House Rep	-	1,812		404
Legis Rsrch	-	109		84
SOS	-	2,722		2,694
Auditor	-	6,547		13,490
Treasurer	-	30,703		48,394
AGO	-	6,499		5,611
OA	11,922	3,566,488		3,477,116
SDC/Growth	-	1,863,655		1,148,465
Agriculture	940	213,650		181,359
Insurance	5,232	303,592		324,782
Constrvtn	-	4,170		2,035
DED	95	546,646		380,630
DESE	3,011	682,405		733,954
Higher Ed	342	165,081		194,977
DHSS	8,223	1,520,613		1,655,973
MODOT	-	33,405		422,911
DOLIR	24,067	1,605,482		1,322,514
DMH	508	2,294,775		2,563,375
DNR	933	1,072,779		1,184,772
DPS/MShp	1,721	889,691		844,727
Revenue	23,230	5,259,333		5,940,193
DSS	43,739	14,341,367		16,203,754
DOC	1,637	1,738,678		1,815,643
Other	-			127,162
<b>Total</b>	<b>125,600</b>	<b>36,152,795</b>		<b>38,595,723</b>